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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,042	07/25/2001	Charles Robert Giardina	2-10-6	7043

7590 11/05/2004

Docket Administrator (Room 3C-512)  
Lucent Technologies Inc.  
600 Mountain Avenue  
P.O. Box 636  
Murray Hill, NJ 07974-0636

EXAMINER

AGHDAM, FRESHTEH N

ART UNIT	PAPER NUMBER
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2631

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/915,042

Applicant(s)

GIARDINA ET AL.

Examiner

Freshteh N. Aghdam

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification***

The disclosure is objected to because of the following informalities:

Figure 4 is not described in the Brief Description of the Drawings.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 through 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Wright (US Patent 6,798,843).

As to claims 1 and 6, Wright teaches a predistortion system that predistorts a signal by producing sample output values that only depends on one plurality of time spaced input samples which Wright represents it by  $V_m(t)$  and is a digital signal comprising of plurality of bits (Col. 13, Lines 1 and 2). As it is shown in figure 4A the input signal is delayed which makes the input sample values time spaced and

furthermore combines the sample output values using an adder to obtain the predistorted signal  $y(t)$  (Fig. 4A; Col. 13; Col. 14, Lines 1-9).

As to claims 2 and 7, Wright discloses that time spaced input signal samples are successive input signal symbols since the input signal  $V_m(t)$  is a digital signal and comprising of plurality of bits successively following one another (Fig. 4A; Col. 13; Col. 14, Lines 1-9).

As to claims 3 and 8, Wright teaches to produce a sample output value by taking the absolute value of a time spaced sample input value  $V_m(t)$  and applying it as a pointer to a look-up table which can be one or multi-dimensional to produce an intermediate value and then multiply it with the corresponding time spaced input signal as Giardina does it too (Fig. 3; Fig. 4A; Col. 12, Lines 1-11 and Lines 49-51; Col. 14, Lines 1-9).

As to claims 4 and 9, Wright teaches adding the produced sample output values by delaying the input signal and repeating the procedure that was described above and then using an adder to combine them and obtain the predistorted signal  $y(t)$  for his predistortion system (Fig. 4A; Col. 13; Col. 14, Lines 1-9).

As to claims 5 and 10, Wright discloses a predistortion system that produces a predistorted signal where  $x(t)$  represents the absolute value of the input signal value  $x(t)$  which is the absolute value of the input signal  $V_m(t)$  and  $y(t)$  is the corresponding distorted signal (Eq. 1, Col. 15; Fig. 6A and 6B).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Freshteh N. Aghdam whose telephone number is (571) 272-6037. The examiner can normally be reached on Monday through Friday 9:00-5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Freshteh Aghdam

October 25, 2004

  
MOHAMMED GHAYOUR  
SUPERVISORY PATENT EXAMINER

Application/Control Number: 09/915,042  
Art Unit: 2631

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